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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,311	04/16/2004	Yoshiaki Hirai	119471	7746

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EXAMINER	
CHEUNG, VICTOR	
ART UNIT	PAPER NUMBER
3714	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,311	HIRAI, YOSHIAKI	
	Examiner	Art Unit	
	Victor Cheung	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: C, M (as referenced in the specification, page 22, "athlete M" and "character C"). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: SOCCER GAME METHOD FOR USE IN GAME APPARATUS, INVOLVES RECOGNIZING AREAS PERTAINING TO POWER OF CHARACTER GROUP, BASED ON CALCULATED ARRIVAL TIMES OF CHARACTERS UP TO SAMPLE POINTS

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it is not written in a grammatically correct narrative form. It appears to be written in a form nearly identical to claim 1, in one long run-on sentence. Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

Page 40, Lines 10-11: "dominant athlete identification information 733d" should be –dominant team identification information 733e--.

Page 40, Line 26: "space evaluation pint" should be –space evaluation point--.

Appropriate correction is required.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 does not appear to further limit the subject matter of claim 4. Claim 5 appears to only repeat a limitation set forth in claim 4.

8. Claims 1, 2, 4, 7, 9, 11, and 12 are objected to because of the following informalities:

Re Claim 1, Line 7: "keeps" should be –keep--.

Re Claim 1, Line 10: "sample points" should be –plurality of sample points--.

Re Claim 2, Lines 2-3: "on arrival times" should be –on the arrival times--.

Re Claim 4, Line 6: "performing control for moving" should be –performing controls for moving--.

Re Claim 7, Line 2: "a compete type game" should be –a competition type game--.

Re Claim 9, Line 5: "the character group" should be –the character groups--.

Re Claim 11, Line 3: "the information making" should be –the information makes--.

Re Claim 12, Line 4: "the apparatus" should be –the game apparatus--.

Re Claim 12, Line 9: "keeps" should be –keep--.

Re Claim 12, Line 11: "the set sample points" should be –the set plurality of sample points--.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1-11, 13 and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Re Claim 1: Claim 1 claims a method essentially comprising setting a plurality of sample points, calculating positions, calculating arrival times, recognizing areas pertaining to power, and controlling the movements of the characters. The method steps claimed do not belong to any of the four statutory categories of process, machine, manufacture, or composition of matter. The method comprises an abstract idea, however, there is no physical transformation present, only a transformation of data. There is also no useful, concrete, and tangible result. The end result of the method is the "controlling the movements of the characters on positions and/or magnitudes of the recognized areas in the game space", which is not a tangible real-world result, but a transformation of data.

Claims 2-11: Claims 2-11, which are dependent from claim 1, do not add any limitations which overcome the lack of a useful, concrete, and tangible result from the method.

Re Claim 13: A "data signal embodied in a carrier wave" is claimed. Data signals and carrier waves, even though the information encoded within them may be functional, do not fall under any of the four statutory categories set forth by 35 U.S.C. 101 or any of the three categories of nonstatutory subject matter currently specified by the Supreme Court.

Since a carrier wave is not a tangible, physical article or object to constitute a manufacture, and it is not a machine, process, or composition of matter, Claim 13 does not fall within a statutory category of invention.

Re Claims 14: A "program" is claimed. A program (interpreted to be software or computer code to be executed), even when encoded with functional descriptive material, claimed without an associated physical medium or device, lacks any practical application, and therefore is not statutory subject matter.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1, 2, 6, 9, 10, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re Claim 1: Claim 1 recites the limitation "the respective characters" in line 6. There is insufficient antecedent basis for this limitation in the claim. It is also unclear as to what the characters are "respective" towards.

Re Claim 1: Claim 1 recites the limitation "the respective sample points" in line 14. There is insufficient antecedent basis for this limitation in the claim. It is also unclear as to how the plurality of sample points are respective to the characters.

Re Claim 1: Claim 1 recites the limitation "the characters on positions and/or magnitudes of the recognized areas in the game space" in lines 15-16. It is unclear how the characters can be "on positions" or "on magnitudes".

Re Claim 2: Claim 2 recites the limitation "the set respective sampling" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. It has been interpreted in this office action to be –the sample points--.

Re Claim 6: Claim 6 recites the limitation "the character group on the positions and/or magnitudes of the recognized areas in the game space" in lines 4-6. It is unclear how the character group can be "on positions" or "on magnitudes".

Re Claim 9: Claim 9 recites the limitation "pertaining to power of each of the character group on the arrival times of the respective sample points" in lines 5-6. The meaning of the limitation is unclear; it is unclear as to whether the power of each of the character groups is recognized at a time of arrival to the sample points, or if the power of each of the character groups is recognized based on the arrival times. It is also unclear what the "respective sample points" are respective to.

Re Claims 9-10: Claims 9 and 10 recite the limitation "on the positions and/or the magnitudes of the recognized areas pertaining to the power of the first character group in the game space" and "on positions and/or the magnitudes of the recognized areas pertaining to the power of the second character group in the game space" in lines 9-16 of each claim. It is unclear how the character group can be "on positions" or "on magnitudes".

Re Claim 12: Claim 12 recites the limitation "an arrival time calculation section for calculating arrival times of the characters up to the set sample points from the calculated positions as starting points" in lines 10-12. It is unclear what are the starting points, whether the calculated

arrival times are starting points, or the calculated positions are starting points. It should be clearly indicated in either case. It is suggested that "as starting points" be removed.

Re Claim 12: Claim 12 recites the limitation "the calculated arrival times of the characters up to the respective sample points" in lines 14-16. It is unclear as to what the "respective sample points" are respective to.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258).

Re Claim 1: Rupert et al. disclose a game performing method for executing a given game by controlling movements of characters constituting a character group comprising setting a plurality of sample points in a game space (Col. 4, Lines 55-64), calculating positions of the characters after a prescribed time when the characters keep a present moving situation (Col. 6, Lines 27-32), recognizing areas pertaining to a power of the character group to the samples points (Col. 6, Lines 60-65; Col. 4, Lines 58-64), and controlling the movements of the characters in the game space (Col. 7, Lines 1-3).

However, Rupert et al. do not specifically disclose calculating arrival times of the characters to the plurality of sample points from the calculated positions as starting points.

Rupert et al. teach that the Voronoi regions used are a collection of points that a character is closest to. The player may be closest in distance, or the player may be closest based on non-linear measurements such as momentum, speed, and direction (Col. 4, Lines 58-64; Col. 6, Lines 27-40).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the arrival times of the characters to the plurality of sample points from the calculated positions as starting points. The Voronoi regions depict areas that the character is able to reach faster than any other character, i.e. it is the result of a comparison of the arrival times of the characters. By calculating the arrival times of the characters, it can be more easily determined which characters can reach an area faster.

Re Claim 2: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. also teach that the Voronoi regions depict regions which a character is closest to, either by a linear or non-linear measurement (Col. 4, Lines 58-64).

Re Claim 3: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. also teach that the Voronoi regions depict regions which a character is closest to, either by a linear or non-linear measurement (Col. 4, Lines 58-64). The Voronoi regions divide the entire pitch, depicting the power areas of a first character group and the power areas of a second character group. The power areas of the second group are the non-power areas of the first character group, and vice versa.

Re Claims 4 and 5: Rupert et al. teach the limitations of claim 3, as discussed above.

However, Rupert et al. do not specifically teach setting movement target positions on the recognized non-power areas, wherein the controlling the movements of the characters includes moving the characters to the movement target positions.

Rupert et al. also teach that the use of the Voronoi regions can arbitrarily be set and designed for any type of purpose. One use is to determine which character will defend which opponent character. In this situation called marking, a defending player moves to guard an opponent. (Col. 8, Lines 15-66)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to set movement target positions in non-power areas, and then control the movements of the characters to the movement target positions. When a character is set to defend an opponent character, the character should move towards the opponent character, creating a life-like situation as in a real sport game.

Re Claim 6: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. also teach that one character can be selected to be controlled in a situation such as when the character is closer to an opponent's goal than the offensive line in a soccer game, the character will be given specific instructions and will run in the direction of the goal (Col. 7, Lines 6-15).

Re Claim 7: Rupert et al. teach the limitations of claim 6, as discussed above.

Rupert et al. also teach that the game is a compete-type game in which an attacking direction of the character group is previously determined (Fig. 5; Col. 6, Lines 43-59; Col. 7, 6-15), and

selecting the character to be the object of control includes consideration of the attacking direction of the character group (Col. 7, Lines 6-15).

Re Claim 8: Rupert et al. teach the limitations of claim 6, as discussed above.

Rupert et al. also teach that the game is a ball game (Fig. 1), and selecting the character to be the object of control with consideration of a position of a ball in the game space (Col. 5, Lines 10-17).

Re Claims 9 and 10: Note that claim 10 is nearly identical to claim 9 except that the controlling the movements of the first character group is based on the power of the first character group, and the controlling the movements of the second character group is based on the second character group.

Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. also teach that the character group can include a Team A and a Team B (Fig. 1; Col. 7, Lines 7-11), recognizing areas pertaining to power of each of the character groups (Col. 5 Line 66-Col. 6 Line 10), and that the controlling of the movement of an offensive player can be such to adapt to power areas of both teammates and opponents (Col. 7, Lines 6-35) whereas the controlling of the movement of a defensive player can be such to decide which defensive player should defend against which offensive player (Col. 8, Lines 15-20). Also, as is well known in the game of soccer, each team can change from the offense group to the defense group, or change from the defense group to the offense group.

Re Claims 11 and 14: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. also teach a storage medium having program code recorded thereon for making an operating device execute the method of claim 1 (Fig. 2, Reference Nos. 112 and 120; Col. 4, Lines 4-13).

Re Claim 13: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. also teach that data may be obtained over a network or electronic channel for executing the method as claimed in claim 1 (Col. 4, Lines 12-13).

15. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258) as applied to claim 1 above, and further in view of Takatsuka (US Patent No. 6,149,520).

Note that as claimed, claim 12 sets forth a game apparatus with sections for executing the gaming method of claim 1.

Rupert et al. teach the limitations of claim 1, as discussed above. Rupert et al. also teach a computer game hardware system comprising a console (Fig. 2, Reference No. 102) comprising a processor (Fig. 2, Reference No. 110), and program code storage (Fig. 2, Reference No. 112) for executing the method of claim 1.

However, they do not specifically teach a point setting section, an inertia calculation section, an arrival time calculation section, an area recognition section, and a movement control section.

Takatsuka teaches a game apparatus for controlling a character in a video soccer game, including calculating a character's future position, calculating angles and distances between a character and the ball and an opponent character, including different sections for each of the processing and calculating method steps (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a section of the processor of Rupert et al. be used for each method step. By having a section for each step that has to be calculated, the entire process can be pipelined and work faster and more efficiently.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ariano et al. disclose a device for simulating the game of football/soccer including a field split into zones, automatically controlling the movements of the characters based
- Mine et al. disclose a game in which the ability to change which character is being controlled can be determined by properties such as offensive/defensive situations or proximity to a ball.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Cheung whose telephone number is (571) 270-1349. The examiner can normally be reached on Mon-Thurs, 8-4:30, and every other Fri, 8-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VC
2/21/07

KIM NGUYEN
PRIMARY EXAMINER